

[TEST KEY FOR DETECTING ELECTRICAL ISOLATION BETWEEN A WORD LINE AND A DEEP TRENCH CAPACITOR IN DRAM CELLS]

Abstract of Disclosure

A test key includes a substrate, a deep trench capacitor formed in the substrate, and at least one active region defined on the substrate. The active region comprises a first region, a second region and an ion well. A thermal oxide layer is formed in the first region. A top-thin oxide layer is formed in the second region. The second region overlaps with the deep trench capacitor. At least one word line partially overlapping with the top-thin oxide layer. The ion well is electrically connected with a polysilicon electrode of the deep trench capacitor. The thermal oxide layer within the first region does not overlap with any word line.

Figures